

## II. REMARKS

### A. TELEPHONE INTERVIEW

After receiving the June 17, 2003, Office Action, Applicants' undersigned counsel held a brief telephone interview with the Examiner at the beginning of August 2003. Counsel, on behalf of Applicants, discussed with the Examiner the issue of whether or not lactose is a galactose oligomer (as was asserted in the Office Action). Applicants pointed out that the issue had already been addressed in the Preliminary Amendment of June 11, 2002 (see page 20, final full paragraph of that Amendment), wherein Applicants pointed out that lactose is a dimer of D-glucose and D-galactose, as indicated at page 843 of the Merck Index (1989). In the telephone interview, Applicants also pointed out to the Examiner that *Rosen et al.*, U.S. Patent 3,926,732, cited in the June 17<sup>th</sup> Office Action reiterated the teaching of the aforementioned portion of the Merck Index, i.e., that lactose is split by the enzyme  $\beta$ -galactoxidase into galactose and glucose (col. 2, lines 57-58).

Applicants asked the Examiner in the telephone interview to withdraw the Office Action. The Examiner declined to do so and advised that, in his opinion, the application was focused on lactose which caused him to focus on lactose during the search. The Examiner also asked Applicants to provide him with an example of a "galactose oligomer" and suggested that in a response to the Office Action Applicants point out that the issue of whether or not lactose is a galactose oligomer had been previously addressed.

**B. APPLICANTS REITERATE THEIR TRAVERSAL OF  
THE ELECTION/RESTRICTION REQUIREMENT**

In the Office Action, the Election/Restriction Requirement was made final because “. . . the composition is known as is evidenced by the applied references and thus the inventions do not share a special technical feature.” Office Action, page 2. For the reasons detailed below, Applicants respectfully point out that the composition is not known and, in fact is patentable over the art cited in the Office Action. Accordingly, Applicants reiterate all of the reasons traversing the restriction requirement set forth in the Response to Office Action Restriction Requirement of August 27, 2002, filed on November 27, 2002, incorporated herein by reference. Applicants also reserve all of the rights to pursue traversal of the Restriction Requirement, e.g., by a petition under 37 C.F.R. § 1.144.

Accordingly, Applicants urge that the requirement be withdrawn and that all claims be considered on the merits.

**C. CLAIMS EXAMINED ON THE MERITS ARE NOT  
ANTICIPATED BY THE CITED REFERENCES**

Claims 28, 29, 32-37, 40-43 and 53 were rejected under 35 U.S.C. § 102(b) as anticipated by *Coughlin et al.*, U.S. Patent 4,048,018, *Montgomery*, U.S. Patent 4,617,190, and *Rosen et al.*, U.S. Patent 3,926,732. It was asserted that the references teach lactose, which, allegedly, is a galactose oligomer, and galactose oxidase. Office Action, page 3.

Applicants respectfully traverse this rejection. Initially, it is reiterated that lactose is not a galactose oligomer for the reasons discussed above.

It is noted that in the PCT application which forms the basis for this U.S. application (PCT/DK/98/00335) claim 11, dependent from claim 10, was directed to

lactose as an oxidizable substrate compound. Claim 10 (ultimately dependent from claim 1) recited a galactan, a galactose oligomer or dimer, or galactose, as the oxidizable substrate compound. It appears that claim 11 was inadvertently made dependent from claim 10, and instead it should have been dependent from one of the other claims, e.g., claim 8 or 1.

Accordingly, any possible teaching of the combination of lactose and galactose oxidase in any of the three references does not anticipate Applicants' claim. In this respect, it is pointed out that claim 33, the only independent claim in the group of claims rejected in the Office Action, is directed to composition which comprises two components:

as a first component: galactose oxidase; and

as a second component:

- (i) an oxidizable substrate for the galactose oxidase which is at least one of a galactan, a galactose oligomer or a galactose dimer;
- (ii) an oxidizable substrate for the galactose oxidase which is at least one of a galactan, a galactose oligomer or a galactose dimer, and an enzyme which is capable of converting a compound into a substrate for the galactose oxidase; or
- (iii) an enzyme which is capable of converting a compound into a substrate for the galactose oxidase.

The arguable teaching of lactose and galactose oxidase in any of the three references does not disclose all the limitations of claim 33, much less any of the claims dependent from it. Therefore, such a teaching fails to anticipate any of Applicants' claims.

Applicants respectfully request withdrawal of this rejection and indication of allowance of all claims.

If Applicants overlooked any portions of the cited references that contain any disclosure which, in the Examiner's opinion, render any of Applicants' claims unpatentable, they respectfully request that the Examiner identify any such portions by referring to the column and line number of the references.

**D.     RESPONSES TO REQUESTS FROM THE EXAMINER  
DURING TELEPHONE INTERVIEW**

In response to the Examiner's request that Applicants provide an example of a "galactose oligomer", Applicants respectfully point out that this term should be interpreted as having its ordinary and accustomed meaning, i.e., a molecule which comprises a small plurality of galactose units. *See, e.g.*, IUPAC Compendium of Chemical Terminology, 2<sup>nd</sup> Edition (1997) (copy enclosed for the Examiner's convenience).

The Examiner also asserted that the Application was focused on lactose and that was the reason why he focused on lactose during his search. Applicants respectfully point out that their claims are not expressly focused on lactose. Also, Applicants would appreciate the identification from the Examiner of portions of the Application which support that assertion.

E. REQUEST FOR ALLOWANCE

For all of the reasons discussed above, Applicants respectfully request an indication of allowance of all claims.

Respectfully submitted,

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**oligomer molecule**

A molecule of intermediate relative molecular mass, the structure of which essentially comprises a small plurality of units derived, actually or conceptually, from molecules of lower relative molecular mass.

**Notes:**

1. A molecule is regarded as having an intermediate relative molecular mass if it has properties which do vary significantly with the removal of one or a few of the units.
2. If a part or the whole of the molecule has an intermediate relative molecular mass and essentially comprises a small plurality of units derived, actually or conceptually, from molecules of lower relative molecular mass, it may be described as oligomeric, or by oligomer used adjectivally.

1996, 68, 2289